CITY OF INDIANAPOLIS

Clean Stream Program

FACT SHEET

White River/Fall Creek Tunnel Evaluation Study

The City of Indianapolis Department of Public Works is working to reduce sewage overflows to neighborhood streams. The city has completed a preliminary study for a deep underground tunnel that will store millions of gallons of sewage that now flows into White River, Fall Creek and other streams during some wet weather events.

The study represents the city's first look at important issues such as groundwater protection, tunnel length and route, and geology – especially in the bedrock where the tunnel will be built.

Underground solutions are becoming more common in cities because there is little or no room above ground for the facilities we need to build.Following the results of the geotechnical exploration program and considering other factors, the tunnel is expected to be dug approximately 200-250 feet below ground with a tunnel boring machine.

Tunneling minimizes disruption to neighborhoods, but some construction will be required on the surface. The city will need one or two staging areas at ground level to dig a vertical shaft and launch the machine, and another staging area for a retrieval shaft to remove the machine. New sewers and approximately 21 drop shafts will be dug to connect overflow pipes to the tunnel.

The study placed an emphasis on protecting the groundwater supply because parts of the tunnel will run adjacent to city wellfields. The city will ensure wellfield protection through groundwater monitoring, advanced tunnel construction practices, sealing the tunnel with grout and concrete, and limiting the tunnel's fill level and storage time during operation.

The preliminary study suggests the tunnel will be 7.5 to 10.5 miles long and 26-35 feet in diameter. Three different tunnel routes were studied, as shown in Figure 1. The final route will be selected after doing test borings, other studies, and communication with the public.

A typical rock tunnel boring machine is shown in the photo.

The final draft of the Fall Creek Evaluation Study is completed. Based on the initial recommendations, the geotechnical investigation work for the tunnel is currently underway. This work includes ten borings, approximately 350 feet below ground. The final study report and geotechnical was completed in September 2005.

ANTICIPATED PROJECT BENEFITS:

- Meet overflow control and water quality goals of the city's long-term plan.
- Capture raw sewage overflows from Fall Creek, Pogues Run, Pleasant Run and White river and provide storage of captured flows during and after rainfall.
- Improve stream water quality and protect public health.

For more information visit our Web site at www.indycleanstreams.org

Study Consultant: GEC, Inc. and Black & Veatch Corporation

Project Cost: $2.5 million (Study)

Total Project Cost: $600 million

Expected Completion Date: September 2005 (Study)

INDIANAPOLIS CLEAN STREAM TEAM

City of Indianapolis
Bart Peterson, Mayor

DPW

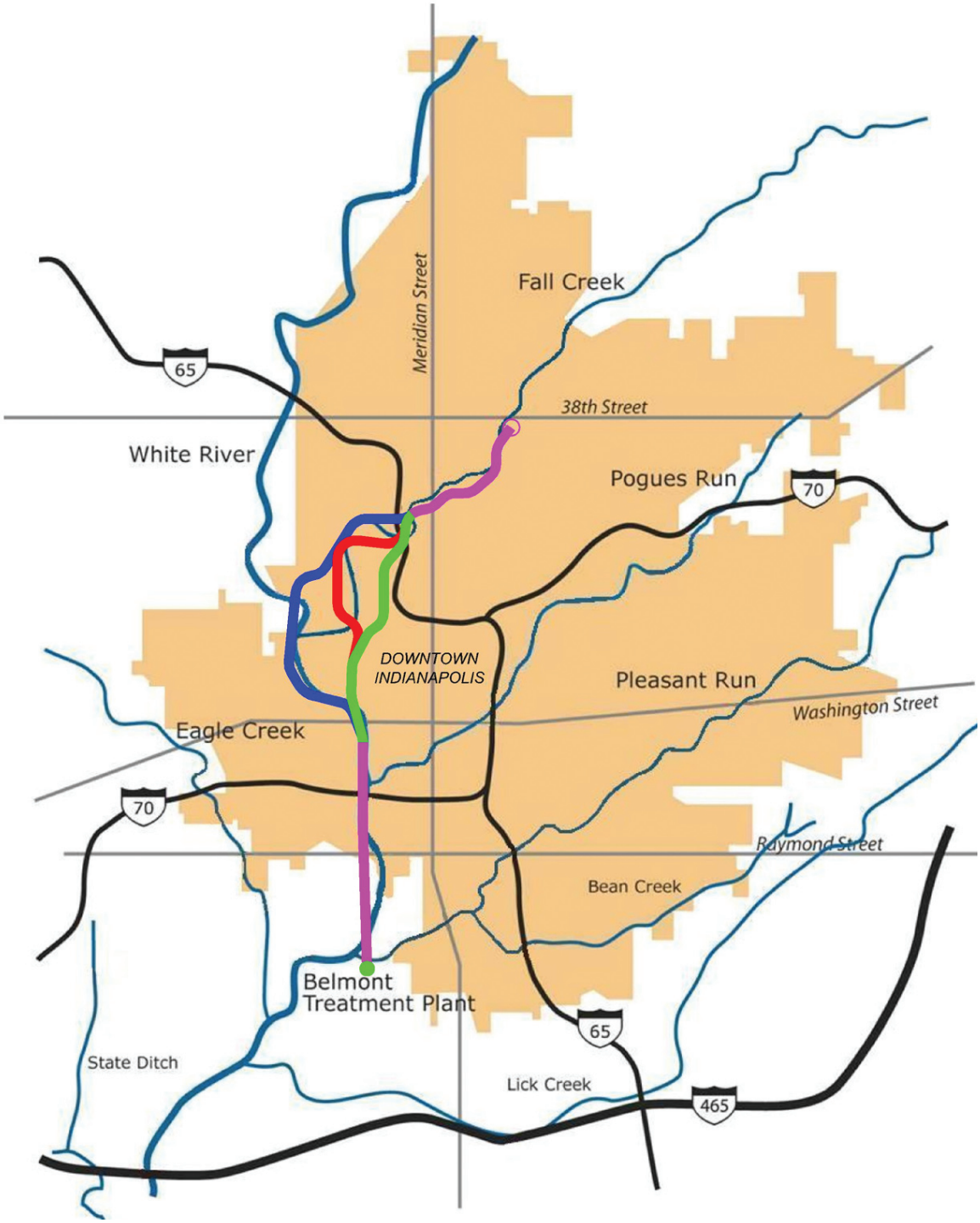

Figure 1 *The above map shows the three different tunnel routes considered in the White River/Fall Creek Tunnel Evaluation Study.*